

## **Response To Public Comments**

### **Little Canyon Mountain Fuels Reduction Project**

#### **EA No. OR-054-02-083**

In August of 2002 the Prineville District BLM launched the preparation of a fuels reduction project for the BLM administered lands in the Little Canyon Mountain Area south of John Day and southeast of Canyon City. Initial public scoping was engaged with the interested parties including Grant County, the City of Canyon City, the Little Canyon Mountain Working Group and the Blue Mountain Biodiversity Project. As a result of initial scoping, several primary objectives for the project were described:

1. Reduce Hazardous Fuels on LCM to manage surface fire and reduce crown fire potential in order to protect resources on the mountain and adjacent urban areas from catastrophic loss.
2. Improve Fire Prevention and Suppression Opportunities on BLM managed lands within the project area.
3. Improve Forest Health by reducing stand densities and competition and stress among trees to promote healthier, more vigorous and robust tree stands which are more capable of resisting parasitic insect infestations and decrease the potential for continuous running crown fire.

A BLM interdisciplinary team (IDT) commenced preparation of an analysis document to propose alternatives, assess impacts and measure attainment of objectives as a result of implementation of the proposed project. The IDT defined several key indicators associated with the primary project objectives. These indicators were used consistently across all alternatives to describe affect on attainment of the primary objectives. These indicators are:

**Indicator:** Percentage of BLM managed lands that would maintain surface fire behavior even under extreme weather conditions.

**Indicator:** Acres of defensible space (40-60 basal area (BA)) within ¼ mile of the wildland-urban interface boundary and associated structures.

**Indicator:** Percentage of BLM managed lands within various densities (basal area ranges) that enhance tree vigor and reduce competition and stress between trees.

Included in the analysis were six distinct alternatives including the required No Action Alternative and five others. The IDT developed four alternatives and one alternative was included as a result of input during the initial scoping period. In April of 2003 an Environmental Assessment (EA) was released for a public comment period. During this process the BLM received 23 separate comment letters from 23 separate individuals and/or groups; the BLM also received comments through several public meetings held during the comment period. The

comment letters were designated with a number (i.e. LCM-01....LCM-23) and subsequently reviewed for content. Comments were extracted from these letters, compiled and grouped into lists of similar concerns. The BLM summarized these concerns in order to assess their applicability and respond accordingly. The following report includes summarized concerns, specific comments and BLM responses and BLM actions with regard to these concerns and comments. Each concern is labeled and followed by a list of letters received that include comments regarding the same concern. At the end of this report is a list of the letters and authors so it is possible to track comments made in a specific letter to the BLM response. Each letter, in its entirety can be found on the BLM website or copies of the letters are available via request to the BLM District Office in Prineville, Oregon.

After reviewing these comments as well as feedback the BLM has received throughout the process one major theme is evident – all interested parties agree that Little Canyon Mountain has an obvious fuels concern with respect to catastrophic wildfire and that some treatment should be pursued by the BLM to reduce the risk to life, communities, homes and other structures adjacent to the Little Canyon Mountain Area.

Upon release of the EA, the BLM did not propose a ‘Preferred Alternative’ for accomplishing the defined Purpose and Need (See Chapter 1 of the EA). While each alternative was designed to stand alone, they were also designed to allow for the combination of particular treatment options into a ‘custom’ alternative. This led to some confusion; however, the purpose was to elicit meaningful feedback from interested parties during the comment period with regard to their preferred treatment and rationale. The resulting comment letters did provide a thorough level of detail when discussing proposed actions. Many comments displayed a preference for particular pieces of the alternatives or the entire alternative. This feedback is very appreciated and will be extremely useful during the final decision process. All of these comments will be considered in making the final decision.

Letters with preferences on final alternative include: **LCM-01, LCM-02, LCM-03, LCM-04, LCM-05, LCM-06, LCM-07, LCM-08, LCM-09, LCM-10, LCM-11, LCM-12, LCM-13, LCM-14, LCM-15, LCM-16, LCM-17, LCM-18, LCM-19, LCM-20, LCM-21, LCM-22, LCM-23.**

Numerous letters were received from individuals that call Grant County home and have lived in the area for many years or generations. Several of these letters contained numerous site specific and insightful observations of the history, current conditions and probable outcomes of management in the area. These letters reinforce and reiterate much of the historical and present conditions described in the EA and further substantiate the pressing need for treatment in the area. The BLM appreciates this type of feedback and incorporates these comments into the EA.

Letters of this nature include: **LCM-06, LCM-10, LCM-17, LCM-18.**

The principal reason for obtaining comments during this process is to ascertain whether all pertinent issues or resource values were addressed adequately in the document – in other words – is there some information the BLM did not use or was not aware of that has been brought forward in the public comments that changes the analysis in the document?

After thoroughly reviewing each letter and comment the BLM has not discovered any pertinent issues or resource values that were inadequately addressed in the document or during the document preparation process. However, various comments do bring up particular concerns that were addressed during the preparation of the EA but not displayed in the EA. In these cases a complete description will be included in this document.

The remainder of this document is divided into sections which address specific concerns brought forward within the public comments received. Each section further summarizes or paraphrases specific comments and the BLM response to those particular comments. The sections include:

1. **NEPA Adequacy**
2. **Fire and Fuels**
3. **Forest Management Activities**
4. **Wildlife and Habitat Concerns**
5. **Mining Concerns**
6. **Motorized Access and Transportation System**
7. **Visual Resources**
8. **Monitoring**
9. **Letters and Authors**

## **1. NEPA Adequacy**

### **1.1 The LCM EA is based upon fraudulent and distorted misinformation.** From Letter(s): LCM-15.

**The EA misrepresents the historic condition and does not use the Langston reference to derive historical conditions.** From Letter(s): LCM-15.

**The BLM has not substantiated the historic conditions described.** From Letter(s): LCM-11.

**BLM Response:** This comment reflects the underlying philosophy for numerous other comments received in this letter and therefore will be responded to first. The authenticity and reliability of the NEPA process depends on an accurate understanding and interpretation of applicable historic and contemporary information.

At the beginning of the process the interdisciplinary team evaluated several predictive fuels behavior models to simulate and analyze the effects of proposed treatments. The necessary inputs for these models were then collected in the field through a statistically sound sampling process. A BLM crew spent two weeks collecting site-specific ground verified data to be used in evaluating all proposed alternatives. This data was then input into the selected predictive models and compared across a common reference.

This EA used two fire behavior computer-modeling programs to calculate expected fire behavior for each alternative.

**Fuels Management Analyst** is a comprehensive, computer-based, fuels management tool designed to:

- A. Calculate fuel loading
- B. Develop fuel profiles.
- C. Use stand inventory data to generate canopy fuel weights, canopy bulk density and canopy base height.
- D. Perform a fire behavior and effects assessment based on surface and canopy fuels.

**NEXUS** is an Excel spreadsheet that links surface and crown fire prediction models. It is used to:

- A. estimate surface, transition, and crown fire behavior,
- B. generate site specific indices of torching and crown fire potential,
- C. build and test custom surface fuel models,
- D. evaluate alternative treatments for reducing risk of crown fire,
- E. explore the influence of different factors on predicted fire, behavior and crowning potential using existing fire behavior models,
- F. assess potential for crown fire activity on a working or hypothetical fire.

Both of these computer programs have been used repeatedly by agencies throughout the United States to make fire behavior predictions. And, while the computer programs use standard fuel types and calculation formulae, the input data was unique to this project area. Stand information was collected on site through an extensive plot survey process, and weather input was obtained from a nearby weather station in order to use the most current, localized weather data.

The utility of computer models are not necessarily the specific numbers generated but the comparison of values across various scenarios. With this as a base, different alternatives can be compared to evaluate similarities and differences based on treatments. In this respect all alternatives are evaluated in the same manner which makes relative comparisons applicable.

References to accurately evaluate and describe conditions and impacts were then reviewed. The world abounds with scientific and historical studies, research papers and theses as well as references based on anecdotal or conjectural opinions. In approaching this project the interdisciplinary team sought out specific informational and scientific references in order to, as accurately as possible, describe historic and existing conditions in the area, as well as analyze the potential effects of the proposed activities. These references are included in the EA as Chapter 7 – References and Glossary of Terms. In addition, within each specialist report located in the Appendices, A-S, (which are available online or by request from the Prineville District Office) is found an annotated Bibliography describing why particular references were used and others were reviewed but not incorporated. For example: Appendix C – Cultural Specialist Report describes a reference which was recommended for review during the initial scoping process – *Forest Dreams, Forest Nightmares* by Nancy Langston –

“This book provides a view of changing human land use in the Blue Mountains (incorporating the LCM area) over time. Includes insightful discussion of the complexity of the ecological change in a forested setting due to differing human perspectives; socially, economically and politically. Lacks environmental perspective through time. More specific to the LaGrande/Pendleton area which was affected by different spheres of influence than the LCM area. For this reason the publication was reviewed but not cited.”

Also included in this bibliography is a survey of the Little Canyon Mountain Area by John David:

“Section line survey describing features crossed or monuments placed, as well as general topography, soil and vegetative condition, and sometimes, other general or specific comments. These notes provide the most first-hand accounts of the project area at an early date.”

While both these references were reviewed, only the most site specific, most applicable reference was cited. The same procedure has been followed with regard to all references: many references were considered; however, only those references which provided reliable, site applicable information were incorporated into the document.

The purpose of a site-specific NEPA document for a project is to, as accurately as possible, describe the most applicable and reliable site-specific information possible in order to allow a decision maker to make a rational, informed, intelligent decision. To the best of the BLM’s knowledge this has been done in the EA. The EA has not based its analysis or conclusions on fraudulent or distorted misinformation. Further comments described here in this document which are based on this unsubstantiated philosophy merely distract from the purpose and intent of this project without providing any factual basis to support that premise.

**1.2 The EA fails to disclose ICBEMP directives and the science upon which they are based and violates the regional, inter-agency prohibition on logging conifer trees over 21 inches DBH. From Letter(s): LCM-15.**

**BLM Response:** A northwest government (inter-agency) or Interior Columbia River Basin Ecosystem Management Plan (ICBEMP) agreement or memorandum of understanding (MOU) that prohibits the logging of conifer trees over 21 inches diameter at breast height (DBH) does not exist. Therefore there is not a BLM limit on tree removal based on size class. A single ICBEMP Record of Decision was never completed, therefore the objectives, standards and guidelines in the Proposed Plan did not amend the BLM and Forest Service Land and Resource Management Plans, including the John Day RMP that this Little Canyon Mountain project conforms with. The agency executives, including the Oregon State BLM Director, have agreed to

implement the ICBEMP science findings; however, the basin-wide science assessment and scientific effects analyses do not mandate a particular across-the-board tree size limitation as a long-term, broad-scale ecosystem management strategy. While the science findings do identify losses of the large tree component in dry forest landscapes, they also highlight the elevated risks to forests and forest-dependent species from uncharacteristically severe wildfire intensity and susceptibility to insects and disease. The science supports aggressive restoration across the Basin and science findings were translated into High Restoration Priority Subbasin delineations, one of which is the John Day Subbasin, delineated for Biophysical and Aquatic restoration needs. The LCM project responds to these broad-scale needs, as well as to local needs identified through the project analysis process. The LCM project proposes a ‘thin-from-below’ method as described in Chapter 2 of the EA which would tend to leave the bigger trees on the site while removing primarily the smaller diameter trees, which is consistent with the ICBEMP science findings.

Project design and analysis incorporate Interior Columbia Basin science assessment findings, as well as information from the science consistency reviews and scientific effects analyses conducted on the ICBEMP alternatives. Project design also conforms with the interim direction contained in PACFISH, including buffer designation, culvert replacement and road improvements, closures, or relocations.

**1.3 The EA violates NEPA, CWA and FLPMA and Oregon State Laws and policies.**

From Letter(s): LCM-15.

**The RMP is outdated and should not be used to guide management.** From Letter(s): LCM-11, LCM-15.

**BLM Response:** The EA applies the appropriate level of NEPA compliance to the actions proposed, as is evidenced by the FONSI determination that none of the impacts are either significant or represent significant impacts that have not already been addressed in the John Day RMP/EIS which is the current RMP for this area. The action conforms to the John Day RMP, in accordance with section 202 of FLPMA. Clean Water Act requirements have been met, and the required consultation under ESA is being completed where applicable. The project is also consistent with all applicable Oregon State Laws and policies such as the Oregon Forest Practices Act.

**1.4 The EA does not adequately discuss or disclose all pertinent information such as legislation including the National Forest Protection Act.** From Letter(s): LCM-15

**BLM Response:** The EA addresses pertinent existing laws, regulations and policies. The portions of the Healthy Forests Initiative that do not require legislation to implement represent policy from the Executive Branch of the government. Draft legislation such as the National Forest Protection Act does not constitute current policy and does not apply to this EA. It should be noted, of course, that this BLM area is not included within a National Forest. As such, any legislation specific to National Forests does not apply.

**1.5 The EA does not adequately discuss or disclose the impacts of proposed activities on roadless areas.** From Letter(s): LCM-11, LCM-15

**BLM Response:** Aside from the BLM system of wilderness study areas (WSA), the Forest Service concept of roadless areas does not apply to BLM-administered lands. The only BLM WSA in the area, Sheep Gulch, is well to the south of the project area. The project area was inventoried for wilderness characteristics from 1978-1980 along with other BLM lands in Oregon and was included in wilderness inventory subunit 2-98B. It was found to lack sufficient wilderness characteristics and did not qualify as a WSA. A decision issued in March, 1980 deleted it from wilderness consideration. (USDI Bureau of Land Management "Wilderness Review Intensive Inventory", March, 1980). The Strawberry Mountain Wilderness area is located adjacent to the Little Canyon Mountain project area and is administered by the Forest Service. Implementation of this project would not affect the non-roaded character of the WSA or the roadless character of the Wilderness area.

Impacts of roads on resource values in the project area have been addressed in the EA. All road actions involve upgrading to limit erosion and sedimentation. Road closures would limit erosion and sedimentation and road relocation would move the existing road from its proximity to Little Pine Creek as per PACFISH guidance:

RF-3 - Determine the influence of each road on the Riparian Management Objectives. Meet Riparian Management Objectives and avoid adverse effects on listed anadromous fish by:

A. reconstructing road and drainage features that do not meet design criteria or operation and maintenance standards, or that have been shown to be less effective than designed for controlling sediment delivery, or that retard attainment of Riparian Management Objectives, or do not protect designated critical habitat for listed anadromous fish from increased sediment.

B. prioritize reconstruction based on the current and potential damage to listed anadromous fish and their designated critical habitat, the ecological value of the riparian resources affected, and the feasibility of options such as helicopter logging and road relocation out of Riparian Habitat Conservation Areas.

C. closing and stabilizing or obliterating, and stabilizing roads not needed for future management activities. Prioritize these actions based on current and potential damage to listed anadromous fish and their designated critical habitat, and the ecological value of the riparian resources affected.

These road actions would decrease impacts from current roads. The project area has also been separated by gradient with a break of 35 percent slope. Areas without current

roads that are above 35 percent slope would use aerial (helicopter) yarding to remove excess vegetation according to the selected treatment. This strategy would not create any ground disturbing effects from roads in these areas.

**1.6 An EIS should be prepared to discuss whether removing livestock, reintroducing fire, and removing roads would be as effective, or more effective than juniper control in restoring hydrologic function, fire ecology and vegetation composition.**

From Letter(s): LCM-11.

**BLM Response:** Western juniper was traditionally confined, as a result of its natural susceptibility to wildfire, to the rocky outcroppings, cliffs and scab flats common to much of central Oregon. In the last two hundred years, potentially resulting from grazing practices, general climate change and alterations in the natural fire regime, western juniper has made its way down from canyon rims to interact with the vegetative, hydrologic and terrestrial systems of this region.

Based on the description above, this project proposes to remove juniper that expanded as a result of human alterations in the LCM area. These trees may have expanded as a result of grazing, fire suppression or other human activities. On the other hand, juniper larger than 20 inches were most likely present prior to the time when this area was settled in the 1800s. The intent of this project is to restore ecosystem function especially with regard to vegetative composition and its resulting effects on fire behavior. As described in the EA, Little Canyon Mountain is an area with limited historic grazing use and substantial build-up of fire fuels resulting from suppression management. This project seeks to mechanically return the area to a more fire resistant condition and prepare the area for subsequent re-introduction of prescribed fire. Prescribed fire, while not explicitly covered in this EA, would be reintroduced to the area in the future. At this time, dense fuel conditions prohibit the safe reintroduction of fire to this system. The potential exists for an escaped prescribed burn as well as unsafe conditions for fire-fighters initiating the controlled burn.

The EA evaluated a full range of alternatives to achieve this objective and analyzed them accordingly. In several alternatives juniper was targeted more than other tree species; however, several other alternatives do not target any individual tree species. As a prominent tree species in the area juniper also contribute to the areas fire risk. The extent to which juniper removal contributes to a decrease in fire risk and attainment of the purpose and need of the project is described in Chapter 2 and 4 of the EA and additionally in Appendix D and F. As described in the EA and subsequent FONSI there are no significant impacts as a result of treatments described in the various alternatives, therefore an EIS is not necessary.

**1.7 The EA misrepresents the BMBP alternative.** From Letter(s): LCM-15.

**BLM Response:** On August 6, 2002, the BLM hosted a tour with a representative from the Blue Mountain Biodiversity Project (BMBP). During this tour the representative was shown most of the accessible areas on the mountain and agreed that a fuels thinning



project was needed in the area. During this tour the representative indicated their support for an immediate understory thinning adjacent to private property and structures, and also supported a more comprehensive treatment of the entire mountain focusing on the pre-commercial sized trees. Later during public scoping in September 2002 the BMBP submitted a detailed letter itemizing specific criteria for treatment and actions. This letter limited the treatment area to “up to 1000 feet inside the BLM boundary”. The IDT decided to include this submission as an independent alternative within the EA and analyze it alongside any other alternatives developed for impacts and achievement of purpose and need elements. The criteria set forward within the written letter were included as Alternative B within the EA. This can be viewed in its entirety in Chapter 2 of the EA. The IDT endeavored to preserve as much of the intent and language of this proposal as possible. Certain clarifications were necessary in order to assess the alternative; these appear as bold additions to certain criteria elements in Chapter 2 – Alternative B of the EA.

The discrepancy between the verbal input of the representative and the written submission led the IDT to extend the 1000 foot limitation to include the entire mountain for the purpose of analysis. Map 1 is a visual description of the potential areas for treatment under this alternative, both within and outside the 1000 foot limitation. By removing the 1000 foot limitation the effective area for treatment doubled from 225 acres to approximately 475 acres. However these acreages were mostly located on the upper elevations of the mountain away from private residences and outbuildings. The location of the areas, if treated, would not reduce the fire risk to the adjacent private lands or the forest environment on the mountain a whole; for these reasons the IDT decided to retain the 1000 foot limitation as described in the public scoping letter received from the BMBP.



**1.8 The decision maker must take public comments before signing a FONSI.** From Letter(s): LCM-15.

**BLM Response:** The FONSI is a determination that those impacts described in the EA that have not already been addressed in the umbrella RMP/EIS are not significant. The determination is based on the analysis and impact conclusions in the EA. The FONSI is not a decision document, and the determination in the FONSI is subject to public comment and potential revision, as are the analyses and conclusions in the EA. The CEQ regulations at 40 CFR 1501.4(e)(2), which refer to making the FONSI available for public review, are silent on the issue of signing. Distribution of signed or unsigned FONSI with EAs is at the discretion of the authorized officer. After reviewing the additional public comments received there have been no additional issues raised that were not considered during preparation of the EA nor has any information been presented which would change the evaluation of impacts as a result of the proposed project. Therefore no changes in the determination of the FONSI are necessary.

**1.9 The EA does not adequately discuss or disclose Significant Effects to: soils (cumulative impacts, existing level of disturbance and compaction), mule deer winter range (did not disclose effects, inconsistent with ODFW Mule Deer Management Plan), road density, ineffective fuels reduction, loss of snag habitat, expanded OHV use, hydrology (earlier and higher peak-flows which erode streambanks and destroy habitat for listed fish), wildlife (snag dependent species are not analyzed; lynx travel corridor).** From Letter(s): LCM-11, LCM-15.

**BLM Response:** As stated in the introduction, the Little Canyon Mountain EA is tiered to the John Day RMP/EIS, which analyzed the cumulative impacts of forest management on the resource values you've listed. This EA addresses the impacts of site-specific actions and helps to determine if significant impacts would occur that are not already addressed in the umbrella EIS. The Finding of No Significant Impact (FONSI) determined that the impacts on these values do not constitute significant impacts that have not been addressed by the umbrella EIS.

## **2 Fire and Fuels**

**2.1 Proposed actions will increase fire risk rather than decrease it.** From Letter(s): LCM-15.

**Logging is ineffective at reducing fire risk.** From Letter(s): LCM-11, LCM-15.

**BLM Response:** For the most part, the agency cannot change the fire risk in the Little Canyon Mountain project area. Fires, whether human caused or started by lightning, will always be present in central Oregon. However, by reducing the amount of ladder fuels and increasing tree spacing, the risk of catastrophic, or stand-replacing, fire would be reduced. By eliminating ladder fuels, wildfires that begin in the project area would have a decreased chance of either burning in the canopy, or sustaining crown fire for any length of time. Fire that burns on the ground will serve to "clean up" the forest floor, reducing the amount of needles and downed woody debris without killing large amounts of

overstory vegetation. Ponderosa pine trees evolved with fire, and have thick bark designed to withstand the effects of low-intensity fires. In addition, fires that stay on the ground with flame lengths less than 4 feet are easier and safer for fire fighters to handle. Fuel model predictions made, based on overall reductions in stand density, indicate that the treatments suggested throughout most of the action alternatives would reduce the fire risk to a “surface” fire, rather than an active or passive crown fire.

Although some concerns have been expressed over the amount of cover reduction and the increase in solar radiation as an added component to fire risk, research indicates that the effects of solar radiation or solar drying are much more detrimental in old growth forest conditions, moist forest conditions, clearcut areas, and riparian vegetation. In particular, the removal of riparian vegetation can impact fish habitat and the quality of rearing habitat, stream temperatures, and water quality. While the reduction in cover for this area would represent a major shift in overall canopy closure, this change moves the forest toward more traditional and historic conditions for a ponderosa pine forest. The reduction in ponderosa pine canopy closure would attempt to return these stands to more historic conditions, which were often characterized by widely spaced trees and a continuous understory of flowering plants and grasses. The more open sites would also begin to mimic the historic rangeland type found on the lower slopes in the 19<sup>th</sup> century. The understory vegetation would be expected to respond to the new, more open conditions; however the response would not be immediate. Over time, shade intolerant species would decline and shade tolerant species would increase. Eventually, periodic prescribed burns would be used to maintain lower stand density fuel levels. As stated above, these forests evolved with fire, and can withstand low-intensity burns. However, without reductions in stand density, the risk for higher-intensity, stand-replacing fires remains.

## **2.2 Focus treatment on boundary ½ mile around communities with over 250 people/mi<sup>2</sup>.**

From Letter(s): LCM-11.

**Redefine Wildland Urban Interface Zone (WUI).** From Letter(s): LCM-11, LCM-15.

**BLM Response:** While the majority of this area would be treated at the same time, the vegetative composition in those areas nearest communities would be subjected to the greatest reduction in the majority of these alternatives. Whether treatment is in a low basal area target band on the lower portion of the mountain, treating the entire mountain to the same basal area, or treating according to vegetative type, the most extreme reductions would be in the areas nearest communities. This method not only provides the greatest amount of community protection, but also treats the ponderosa pine forests to a more historic and traditional density.

However, focusing solely on this area would not have the desired effect of reducing crown fire potential. Fuels models used to analyze the project area, as well as the alternatives, indicated that some level of treatment was required on the majority of the mountain to offer the greatest amount of protection. As seen by a previous fire in the area immediately to the east of LCM, local conditions allow for a fast, downhill-moving crown fire. The same local conditions could contribute to a similar fire on LCM.

### 3 Forest Management Activities

**3.1 Annual Maintenance concerns.** From Letter(s): LCM-01, LCM-02, LCM-17.

**Vegetative thinning concerns.** From Letter(s): LCM-01, LCM-03, LCM-07, LCM-10, LCM-12, LCM-13, LCM-20.

**BLM Response:** A favorable treatment is to commercially thin to prescribed basal areas based on stand types. The first step to attaining these basal areas is to treat the dead and dying trees first regardless of diameter. If additional tree removal is necessary to attain these basal areas, then additional green trees will be removed by targeting the least healthy trees in smaller size classes first and increasing in size class until basal area prescription is achieved.

The result should be an uneven aged stand with trees of all size classes. These thinned stands would be more vigorously growing and therefore, less susceptible to beetles for longer periods of time.

In addition, the LCM area would be pre-commercially thinned to prescribed basal areas (juniper and trees less than 12 inches DBH). The combination of the commercial thinning and the pre-commercial thinning would result in basal areas as discussed and prescribed in the EA.

This comprehensive thinning approach would immediately produce a low fire risk rating on 90% of the treated area. In a 30 year projection 73% of the area would remain in this low fire risk state. Refer to “A Strategic Assessment of Fire Hazard in Montana”, Fiedler and others, 2001.

Periodic reentries would be necessary to maintain the prescribed basal areas. In addition, pruning of the remaining trees to 8-10 feet would be an attempt to control ladder fuels as well as promote tree height growth.

In order to manage the existing ground fuel loads, gross yarding of the larger slash materials would remove these fuels to existing landings for disposal. The smaller slash materials would be machine piled on slopes less than 35% and hand piled on slopes greater than 35%

Slash created during commercial operations, i.e., trees less than 24 inches diameter on the large end would be whole tree yarded to the landings. Slash from the larger stems would be hand piled on slopes greater than 35% and machine piled on slopes less than 35%.

The standards identified in “A Strategic Assessment of Fire Hazard in Montana” for the “comprehensive” approach were the main guidelines for the development of the treatment goals in Alternative F. As stated in the Assessment, the comprehensive

approach uses an ecologically-based, reserve target basal area of 40-50 ft<sup>2</sup>/acre to reduce fire hazard in the long-term. This strategy calls for leaving primarily larger trees (p. 4). As identified in the alternative, the target density is identified based on diameter distribution and species composition, with ponderosa pine stands reaching this reserve goal (40-50 ft<sup>2</sup>/acre) and even exceeding it in areas where juniper would also be removed. Based on species composition, Douglas-fir stands and mixed conifer stands would have increasingly larger target reserves. While a “thin-from-below” approach was used, no age class was completely removed, allowing for some larger trees to be removed as well. This higher thinning method would reduce small tree densities to decrease fire hazard and induce regeneration and would also use a low thinning method in the mid-and upper-canopy levels as well.

**3.2 Concern over basal area appropriateness, cover percentage differences.** From Letter(s): LCM-01, LCM-04, LCM-08, LCM-10, LCM-16, LCM-20.

**Basal Area Reduction in Douglas-fir.** From Letter(s): LCM-09, LCM-16, LCM-20.

**Outside community interface area, remove less than 12-inch material in ponderosa pine areas, reintroduce fire.** From Letter(s): LCM-11.

**Crown density and not basal area is the real issue for crown fire.** From Letter(s): LCM-23.

**Target Basal area should be well below Upper Management Zone.** From Letter(s): LCM-10.

**BLM Response:** While the reduction in cover for this area represents a major shift in overall canopy closure, this change moves the forest toward more traditional and historic conditions for a ponderosa pine forest. As described in the Interior Columbia Basin (ICBEMP) DEIS (p. 2:111) there has been a great deal of change and decline in early seral and single layer forests. This decline has been attributed to a combination of fire exclusion, which “can allow increased canopy cover which reduce[s] understory shrubs and herbs.” In dry forest habitat types, fire exclusion is one of several factors that can result in a gradual shift from shade intolerant species to more shade-tolerant species.

Shade-tolerant species, which do not need full sunlight to regenerate and grow, may dominate open forest areas. As long as disturbance maintains an open canopy structure and opens the forest floor to sunlight, they may continue to dominate. As found throughout much of the ICBEMP project area, disturbance is not present or is being actively excluded and shade-tolerant forests (containing species such as Douglas-fir, grand fir and white fir) are increasing and becoming significantly more contiguous.

At the same time, dry forest conifers have been encroaching into rangeland types and upland herbland have shifted to mid-seral interior ponderosa pine forests.

The reduction in ponderosa pine canopy closure would attempt to return these stands to more historic conditions, which were often characterized by widely spaced trees and a continuous understory of flowering plants and grasses. The more open sites

would also begin to mimic the historic rangeland type found on the lower slopes in the 19<sup>th</sup> century. The understory vegetation would be expected to respond to the new, more open conditions; however the response would not be immediate. Over time, shade intolerant species would decline and shade tolerant species would increase.

The proposed basal areas throughout this EA are total basal areas. For example, the proposed Douglas fir basal area of 80-100 square feet per acre would be attained in two steps. The first step would be to reduce the commercial size vegetation to a 60-70 basal area. This would be followed by step two which would reduce the non-commercial size vegetation to a 20-30 basal area. A similar process would take place in other stand types to attain the proposed basal areas that were discussed throughout the EA.

This would retain an uneven aged stand, similar to what exists today, but a much more fire safe and healthier forest stand because it would be spaced to accommodate fire control as well as retard insect propagation.

As described above, and due to the dense nature of existing stand conditions in the LCM area, removing only diameters less than 12-inches would not meet the purpose and need for this project. The overstory canopy is frequently closed in these pine sites, and understory vegetation and trees are also dense. The best method for removing the fire hazard, maintaining longer-term low-intensity fire conditions, and improving the overall health of the site is to remove, in addition to age classes less than 12 inches, a portion of larger diameter classes.

Prescribed fire, while not explicitly covered in this EA, would be reintroduced to the area in the future. At this time, dense fuel conditions prohibit the safe reintroduction of fire to this system. The potential exists for an escaped prescribed burn as well as unsafe conditions for fire-fighters initiating the controlled burn.

### **3.3 Clarify diameter measures (7" diameter in particular).** From Letter(s): LCM-09.

**BLM Response:** When the EA refers to diameter of a tree it is referring to the diameter at breast height (DBH). DBH is measured in inches at a point 4 ½ feet above ground level on the high side of the tree. For cruising and marking purposes the measured diameter is rounded to the nearest even diameter class in inches. For example a measurement of 15.1 inches is rounded to 16 inches DBH while a 14.9 inch measurement is rounded to 14 inches DBH.

### **3.4 Ground based harvest concerns.** From Letter(s): LCM-01, LCM-10, LCM-20, LCM-22.

**BLM Response:** Ninety percent of the area has never been commercially harvested. However, some mining activities have removed some of the encroaching young stems which were used for mining operations at the turn of the century. Practically no ground disturbance from forest harvest activities has taken

place for more than 70 years. The result is a tremendous amount of accumulated duff and slash buildup. Thick duff layers are particularly heavy under and around the larger and older trees. The older trees on this mountain are 90-120 years old.

Therefore, ground skidding as much of the ground as possible (slopes less than 35%) would not only be beneficial for seedbed preparation for future seedlings and grasses for forage, it would also be beneficial for breaking up the existing fire fuels which consist of duff (needles and wood), limbs and other debris.

Ground based skidding on slopes less than 35% is acceptable (John Day RMP, ROD, 1985). Therefore, we are required to apply aerial yarding systems on slopes greater than 35%. This will be accomplished by cable, helicopter or similar yarding machinery. Helicopter yarding will be the preferred yarding method for two reasons: 1. an adequate road system does not currently exist on the north and west faces of the mountain; 2. Recent cost figures indicate cable yarding and helicopter yarding to be practically identical. Therefore, adding new road construction costs to cable yarding would result in cable yarding to be more expensive than helicopter yarding.

Currently two sites exist on Little Canyon Mountain (LCM) for helicopter landing areas. They are the “Pit Area” located on the lower end of the mountain and the previously used helicopter landing area on the upper south side of the mountain.

**3.5 The EA should have disclosed timber volumes to be removed.** From Letter(s): LCM-11, LCM-15.

**BLM Response:** The goal of this project is fuels reduction, not the removal of board feet for commercial production. As stated in the fire/fuels specialist report, basal area, in conjunction with crown bulk density values (the amount and overlap of live crown/canopy) were used to estimate the potential fire type (surface, conditional, passive crown or active crown) across the planning area. Within the EA the pertinent information to reflect the indicators described in the purpose and need were used. Further calculations such as board feet removed under each alternative were described in Appendix F – the Silvicultural Specialist Report and are included here for easy reference.

<b>Alternative</b>	<b>Board Feet (MBF)</b>
Alternative B	56
Alternative C	3301
Alternative D	2510
Alternative E	4076
Alternative F	3644

**3.6 Make non-commercial products available to locals.** From Letter(s): LCM-04.

**BLM Response:** Implementation of this proposed project will likely entail several



specific efforts, such as stewardship contracts or firewood permits that do make both commercial and non-commercial products available to anyone interested. As each step of the project is implemented opportunities for these types of mutually beneficial actions would be pursued.

#### 4. Wildlife and Habitat Concerns

- 4.1 The BLM has not conducted adequate surveys to ascertain the current wildlife use of this area. Without such information it is not possible to legally issue a FONSI for their project, nor for the project as proposed – in all of the action alternatives except B --- to legally go forward.** From Letter(s): LCM-15  
**The BLM has failed to disclose pertinent science concerning neotropical migrant and native birds which are forest-canopy dependent.** From Letter: LCM-15

**BLM Response:** The BLM uses several methods to determine which wildlife species potentially use any given area. For example: The BLM is responsible to assess and review the effects of proposed actions on Bureau Sensitive Species. To comply with Bureau policy one or more of the following techniques may be used.

- a. Evaluation of species-habitat associations and presence of suitable or potential habitat
- b. Application of conservations strategies, plans, and other formalized conservation mechanisms
- c. Review of existing survey records, inventories, and spatial data
- d. Utilization of professional research, literature, and other technology transfer sources
- e. Use of expertise, both internal and external, that is based on documented, substantiated professional rationale
- f. Complete pre-project survey, monitoring, and inventory for species that are based on sound and logistically feasible methods while considering staffing and funding constraints

The BLM used a combination of the above techniques for Sensitive **and** Non-Sensitive species alike. Species-habitat associations and presence of suitable or potential habitat were given significant consideration for this project. An analytical assumption was made that evaluation of these parameters would provide a more accurate estimate of species presence or absence than would surveys alone. When doing this analysis it was assumed that if the habitat were present, that a species associated with that habitat would be present for some part of its life cycle. Therefore, factors that may have affected species presence or absence during a particular survey would be nullified, and the species would be assumed present.

Many of the habitat descriptions and wildlife species associations in the wildlife report prepared for the EA were developed through extensive use of the publication “Wildlife-Habitat Relationships in Oregon and Washington” (Johnson and O’Neil, 2001) and the “Matrixes for Wildlife-Habitat Relationships in Oregon and Washington CD-ROM” (O’Neil et al. 2001). The descriptive habitat/species matrixes in these references were developed using some 60,000 records of data, 100,000 pieces of literature, and panels of fifteen groups of expert specialists.

Changes in habitat structure and expected changes in wildlife species use as a result of the proposed project was fully described in the EA and in Appendix M, Wildlife Specialist Report.

More than adequate information was available to the authorized officer on potential wildlife use of the project area, and impacts of the proposed alternatives to issue a FONSI for the project.

- 4.2 The EA fails to disclose that the goshawk is currently proposed for up-listing under the ESA.** From Letter(s) LCM-15. **The EA states that there is an active goshawk nest in the area, but does not disclose surveys and other information.** From Letter(s) LCM-15 and LCM-11.

The Goshawk is not currently proposed for up-listing under the ESA. The U.S. Fish and Wildlife determined that the population of northern goshawk in the lower 48 states did not warrant listing under the Endangered Species Act in 1998, with this decision being upheld in Federal Courts in 2001. The conclusion in the opinion of the Federal Court dated June 28, 2001 stated "listing the northern goshawk in the contiguous United States west of the 100<sup>th</sup> meridian is not warranted because available information does not indicate that this population is in danger of extinction or likely to become so in the foreseeable future."

On page 102 the EA states that “there were two juvenile goshawks sighted in the analysis area in summer 2002 surveys. It is **assumed** that there is a goshawk nest within the analysis area.” Goshawk survey protocol as described in Survey procedures of the Northern Goshawk on National Forest Lands in the Pacific Northwest Region (June 1993) was used to survey for Goshawks in the project area. BLM has met survey protocol for Goshawk, and no nests were found in the project area. However, further measures will be implemented to look for a nest, white wash, plucking evidence, or other signs of goshawk presence as the project proceeds, and mitigation will be conducted as appropriate.

- 4.3 The BLM has not conducted the requisite surveys for lynx.** From Letter(s): LCM15 and LCM-11.

**BLM Response:** Extensive, standardized surveys have been conducted throughout the Pacific Northwest and the contiguous U.S. using remote cameras

and hair-snag pads. The National Lynx Survey (NLS) was initiated in 1999 to determine presence of lynx over broad areas. The NLS was deployed throughout lynx range in the continental U.S. Between 1999 and 2002, lynx were detected on the Okanogan, Boise, Shoshone, Lolo and Manti-LaSal National Forests, Glacier and Yellowstone National Parks and in northern Maine. Approximately 70 survey grids were sampled in possible lynx habitat. In 1999, 2000, and 2001 the Deschutes National Forest (DNF) and Ochoco National Forest (ONF) conducted NLS surveys designed to attract lynx to a “cheek rub” on a carpet pad, leaving hair which was later collected for DNA testing (McKelvey et al. 1999). In 1999, three additional sites were surveyed by the U.S. Fish and Wildlife service on the ONF using the “Weaver” survey design. None of these surveys resulted in lynx detections. On the Superior National Forest in Minnesota, Lindquist (2003) reported that hair snare surveys had failed to detect lynx in 1999 and 2000 even though lynx were subsequently detected on the Forest; however, hair-snag surveys in Oregon and Washington in 1999, 2000, and 2001 detected lynx where they were known to occur (northeastern Washington) in all three years.

Two other sources of information, not specifically designed to locate lynx, suggest that lynx are rare or absent in Oregon. The USDA Animal and Plant Health Inspection Service has no record of a lynx ever being taken by wildlife services during predator control activities in the State of Oregon (Wagner 2003). Likewise, the Lynx Biology Team reported that the Oregon Department of Fish and Wildlife (ODFW) had conducted aerial detection and snow tracking surveys on over 800 miles in the Cascade Region between the early 1970s and the middle 1990s to detect carnivores. In addition, ODFW was reported to have monitored 160 baited camera sites on National Forest System lands in the middle 1990s. No lynx were reported as a result of these surveys. ODFW has a position that no reproducing populations of lynx are present in Oregon.

Currently the applicable Level 1 consultation team is in the process of determining how these findings affect current management. As far as the Little Canyon Mountain Project is concerned: comprehensive lynx surveys have been done which do not support the conclusion that lynx currently occupy habitat in Oregon, let alone Little Canyon Mountain, an area which does not match lynx habitat characteristics.

**4.3 Due to LCM’s proximity to the Strawberry Wilderness, it likely serves as a potential dispersal and corridor route for some wildlife species.....the EA fails to address this issue, and analyze or disclose the potential impacts to wildlife species. From Letter(s) LCM-15.**

The EA (page 175) does address this issue and states “Composition of existing habitat for wildlife species in the LCM project area will generally shift from a more closed canopy habitat type to a more open canopy habitat type. Although closed canopy habitat types would be reduced, they would still be present in the project area. Some displacement or shift in use patterns by wildlife species would

occur. However, it should be noted that immediately adjacent to the LCM project area is the Strawberry Mountain Wilderness, which is 68,700 acres in size. Wildlife species that would potentially be temporarily displaced would have an area approximately 30 times the size of the LCM project area to migrate to and carry on their life processes. The LCM project would increase habitat diversity in the area by providing a block of managed land that has a more characteristic/historical fire regime with several structural stages of forested habitat for wildlife species use”.

**4.4 The EA fails to disclose what the management requirements from the RMP for mule deer winter range are, and fails to assess the projects likely impacts to mule deer.** From Letter(s) LCM-15 and LCM-11.

**BLM Response:** In the Final John Day RMP under Wildlife and Fish Management Implementation Priorities (page 10), mule deer winter range is listed as a medium priority, and direction in the RMP states to “Monitor, maintain or improve winter range for mule deer and elk. Place priorities for specific treatment in those areas having the greatest problems, the best potential or both”.

Food and cover provided by winter habitat are especially important because the deer’s fat reserves decrease during the winter. Browse on winter ranges provide much needed protein to get deer through the winter. Winter ranges are also the first areas to have forbs, grasses, and grass-like species in the spring, providing forage needed by deer to improve their weakened condition. Winter ranges that have a diversity of thermal cover, browse, and herbaceous species that green up early in the year are optimal.

Big game thermal cover as it relates to winter range was defined in the EA (page 102) as follows: “marginal thermal cover is defined as areas with canopy closure between 40 – 70% with optimal thermal cover being greater than 70%”. Under each Alternative an estimate of marginal and optimal thermal cover acres is given. This analysis was conducted specifically to address the impacts of this project to big game winter range.

The EA also discusses impacts of projects such as Mahogany thinning (page 137). It is noted that the thinning of mahogany stands should result in increased establishment of mahogany seedlings, which, in turn should make more browse available for big game that utilize the area.

**4.5 Snag levels indicated are unnecessary and will promote problem rather than decrease problem.** From Letter: LCM-10. **EA fails to disclose or analyze the project’s impacts upon any of the many wildlife species which are snag-dependent.** From Letter(s): LCM-15 and LCM-11.

**BLM Response:** Dead wood resources are basic to many aspects of ecosystem function. Nutrient capital, water economy, wildlife habitat, and soil organic

reserves and structure all depend heavily on this stratum. Because many wildlife species depend on logs for some aspect of their natural histories, quantifying this resource is a primary focus of Forest Service monitoring for balancing needs for wildlife habitat and other ecological functions against fire risk.

While obviously a vital part of the ecosystem, the number of snags and amount of downed wood in dry forest ecosystems have increased due to the increasing intervals between disturbances (fire). These stands become more dense, and larger amounts of carbon become tied up in these woody materials. Once a stand becomes overstocked, the vegetation experiences moisture stress during the heat of summer and the trees become more susceptible to insect infestations and other diseases. Historically, the project area would have been “thinned from below” by low-intensity fires, which would have not only provided areas of bare mineral soil for regeneration, but also would have lowered tree densities and increased drought and disease tolerance.

Given that downed wood and denser conditions can potentially exacerbate fire behavior, and downed wood and snags provide critical wildlife habitat for various species, the challenge is to develop a prescription that balanced these needs. Research from the Pacific Northwest Research Station in La Grande indicates that downed wood, in layers, is important in mixed conifer stands. For further clarification refer to Appendix M – Wildlife Specialist Report – for details regarding snag levels and Appendix D – Fuels Specialist Report for a discussion of fuels concerns regarding snags.

## **5. Mining Concerns**

### **5.1 The BLM can not do anything to interfere with mining activity or the needs of miners. Do not fall trees on mine tunnels. From Letter(s): LCM-10.**

**BLM Response:** Before field tree marking begins, each mining claimant that has filed for a claim on Little Canyon Mountain and obtained an Oregon mining claim number (ORMC#) will be contacted in regards to what trees on their claim could be reserved or left for future mining activity as well as what trees to remove and where to fall them. Per 30 USC 612 (b), the BLM has the right to manage and dispose of vegetative resources including trees on unpatented mining claims in a manner that does not endanger or materially interfere with prospecting, processing operations, or other uses reasonably incident to mining. If the operator requires more timber than is available on the claim after the removal of timber by the BLM, and if the removal occurred after location of the claim, the operator is entitled, free of charge, to be supplied with timber from the nearest timber source administered by the BLM.

## **6. Motorized Access and Transportation System**

### **6.1 There needs to be rules and law enforcement needs to be involved. From Letter(s):**

LCM-12.

**BLM Response:** There are currently rules in effect that restrict motorized use on public lands during extreme fire danger. These rules apply to OHV's as well as full-size vehicles. Additionally, there is a general rule that prohibits resource damage. While there is nothing specific for Little Canyon Mountain, this general rule would prohibit individuals from participating in activities that cause resource damage.

**6.2 Road Closures – Talk to Miners.** From Letter(s): LCM-02, LCM-04, LCM-10.

**BLM Response:** The BLM intends to talk to miners who may be impacted by road closures before decisions to close specific roads are made. One mining claimant has already been contacted regarding roads and closures within the boundaries of his mining claim.

**6.3 Road Safety concerns.** From Letter(s): LCM-06.

**BLM Response:** The current main road alignment is not safe for vehicle traffic in several areas. The main road realignment will improve transportation for vehicles as well as reduce impacts to the riparian area. Use of culverts or drainage dips will depend on the site and costs associated.

**6.4 The creek has not been muddy; any sediment does not come from the roads but originates from the burn area.** From Letter(s): LCM-01.

**BLM Response:** An empirical study indicated that the levels of fines are elevated in Little Pine Creek. The study determined with 95% certainty that Little Pine Creek has 25% more fines than its reference creek. These observations would indicate that the fines are not moving in catastrophic events, rather, the fines are moving incrementally in the water column and have been slowly transported through the system over the last 30-40 years. Another factor to consider is that this study defined fines as particles smaller than 2mm, and therefore they may not represent the size of particles which would be typically associated with large "muddy" runoff events. The comparison between Little Pine Creek and a reference stream in a less roaded watershed can be reviewed in Appendix P. This study indicates that the presence of roads near the stream increase the amount of fine sediment in the stream channel. While this sediment may not cause the stream to appear muddy the streambed is accumulating fine sediment none-the-less.

## **7. Visual Resources**

**7.1 Visual concerns in this area and their mitigations should not be followed.** From Letter(s): LCM-10.

**BLM Response:** BLM has a basic stewardship responsibility to identify and protect visual values on public lands. According to BLM's Visual Resource Management (VRM) Handbook, "Since the overall goal of BLM's VRM program is to minimize

visual impacts, mitigating measures should be prepared for all adverse contrasts that can be reduced.” (BLM Manual Handbook, Visual Resource Contrast Rating, 8431-1, at 6.). It would not be practical to design a project to meet the visual resource preferences of individuals, as these preferences would be subjective and widely varied. For some individuals the visual resources may be inferior to other concerns, and for other individuals they may be paramount. To reduce subjectivity, BLM’s VRM program uses a contrast rating system to evaluate and minimize the expected contrast or change in the elements of form, line, color and texture between the existing and the future visual landscape. The key to maintaining the visual quality of LCM lies in careful implementation of actions that consider the visual outcome while meeting the objectives of the project. To ensure that “care” is taken to consider visual resources during on-the-ground implementation, instructions, in the form of mitigating measures are provided in this EA. The implementation of VRM guidance is consistent with the Federal Land Management and Policy Act’s (FLPMA) unnecessary and undue degradation requirement. Where VRM guidance can minimize impacts that can be reduced it serves to prevent any unnecessary or undue degradation and should be implemented. Furthermore, the VRM class established through planning is matched to the management objectives/desired outcomes decided for each area through the planning process (e.g., areas identified for commodity production generally have Class III or IV ratings and items designated for protection generally have Class I or II ratings). As such, the VRM system and its Contrast Rating process are implementation tools for our RMP decisions. Not "following" them would be out of comformance with the planning decisions that formed the basis for the VRM class designations.

**8. Monitoring.** From Letter(s): LCM-04, LCM-10.

**BLM Response:** As part of the Decision Record for this project the ID team will design a monitoring plan to address achievement of purpose and need after implementation.

**9. Letters and Authors**

Number	Author	Date
LCM-01	Public Meeting Comments	5/20/2003
LCM-02	Eugene Emery	5/20/2003
LCM-03	Merle Brown	5/20/2003
LCM-04	Eva Harris	5/20/2003
LCM-05	Larry Baughman	5/20/2003
LCM-06	Teresa Gardner, Fred and Vyvyan Gardner	5/20/2003
LCM-07	Curt Komning	5/22/2003
LCM-08	Roger Williams U.S. Forest Service Malheur National Forest	5/22/2003
LCM-09	Steven Courtney	5/23/2003
LCM-10	Nick Sheedy	5/26/2003
LCM-11	Doug Heiken	5/26/2003

	Oregon Natural Resources Council	
LCM-12	Dan Bishop Prairie Wood Products	5/27/2003
LCM-13	Stan and Ann Bird	5/27/2003
LCM-14	Ken Evans KLE Enterprises Inc.	5/27/2003
LCM-15	Asante Riverwind Blue Mountain Biodiversity Project	5/27/2003
LCM-16	Russ Lane Oregon Department of Forestry	5/27/2003
LCM-17	Heather Sheedy	5/27/2003
LCM-18	Tammy Bremner	5/27/2003
LCM-19	Don Mooney Town of Canyon City	5/27/2003
LCM-20	Walt Gentis	5/29/2003
LCM-21	Mike and Diane Browning	5/30/2003
LCM-22	Ken Rutherford Oregon Department of Fish and Wildlife	5/30/2003
LCM-23	Rick Brown Defenders of Wildlife	6/09/2003